Savannah River Site Citizens Advisory Board
Facility Disposition and Site Remediation Committee

P-Area Operable Unit (PAOU) Update

Presentation By

Ray Hannah

Project Manager

Department of Energy

Savannah River Operations Office

April 20, 2010

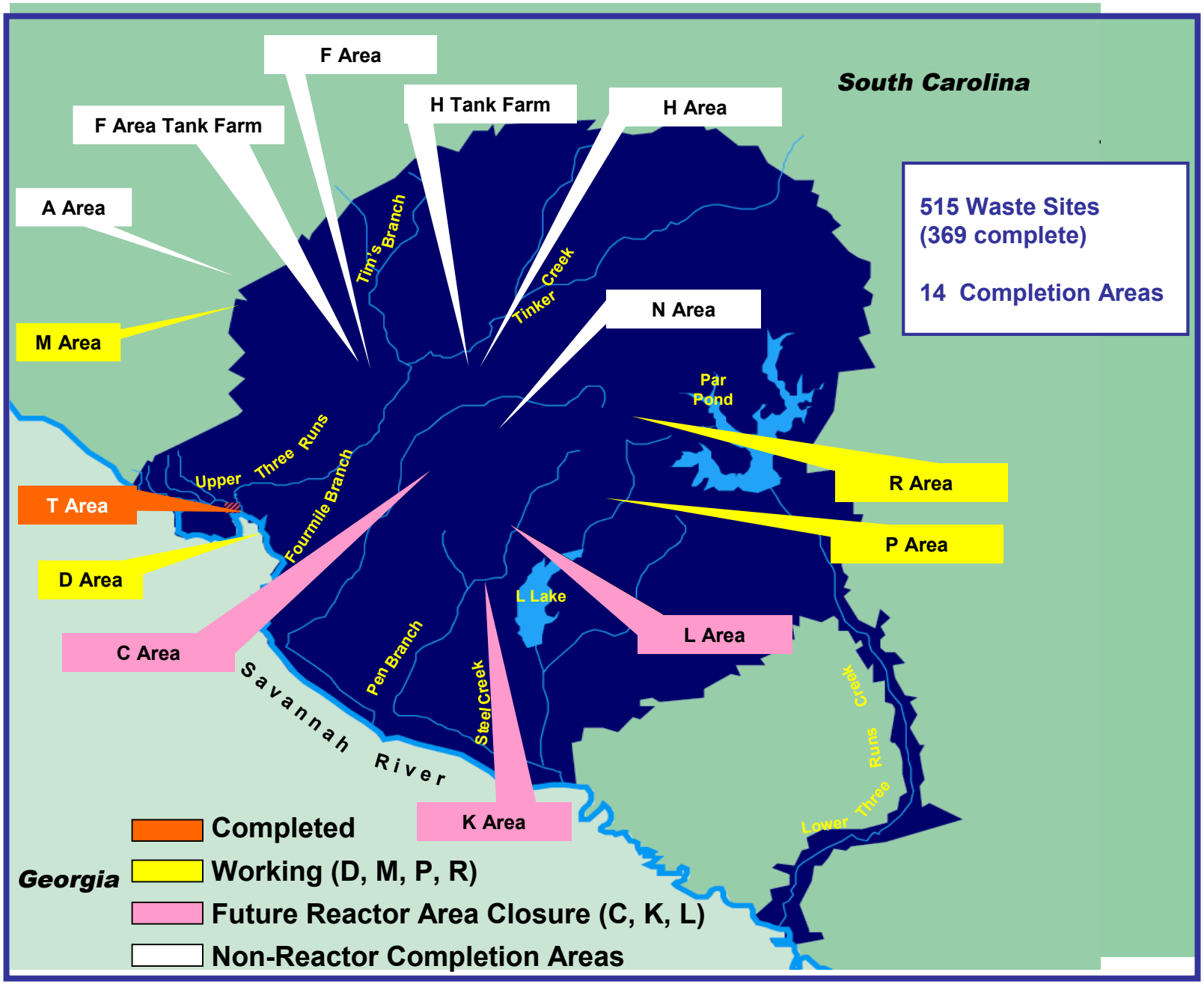
Agenda

- P-Area Operable Unit (PAOU) Background
- Current Status
- Scope
- Strategy
- Accomplishments
- Conclusion

List of Acronyms

- **D&D** — **Deactivation and Decommissioning**
- **PAOU** — **P-Area Operable Unit**
- **RFP** — **Request for Proposal**
- **PSA** — **Potential Source Area**
- **TPC** — **Total Project Cost**

Area Completion Approach



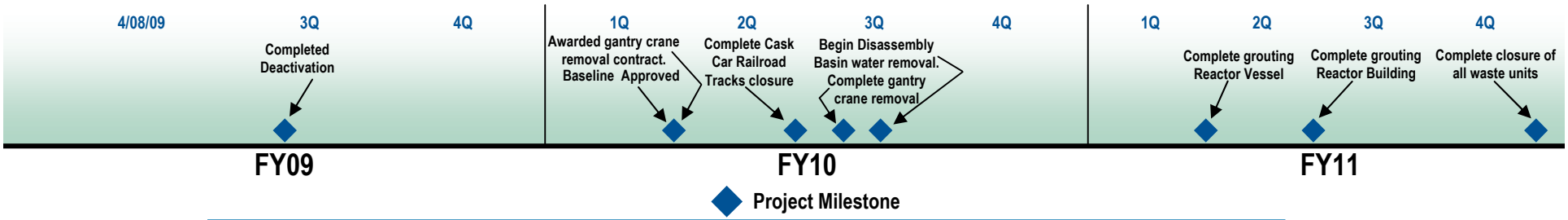
PAOU Background

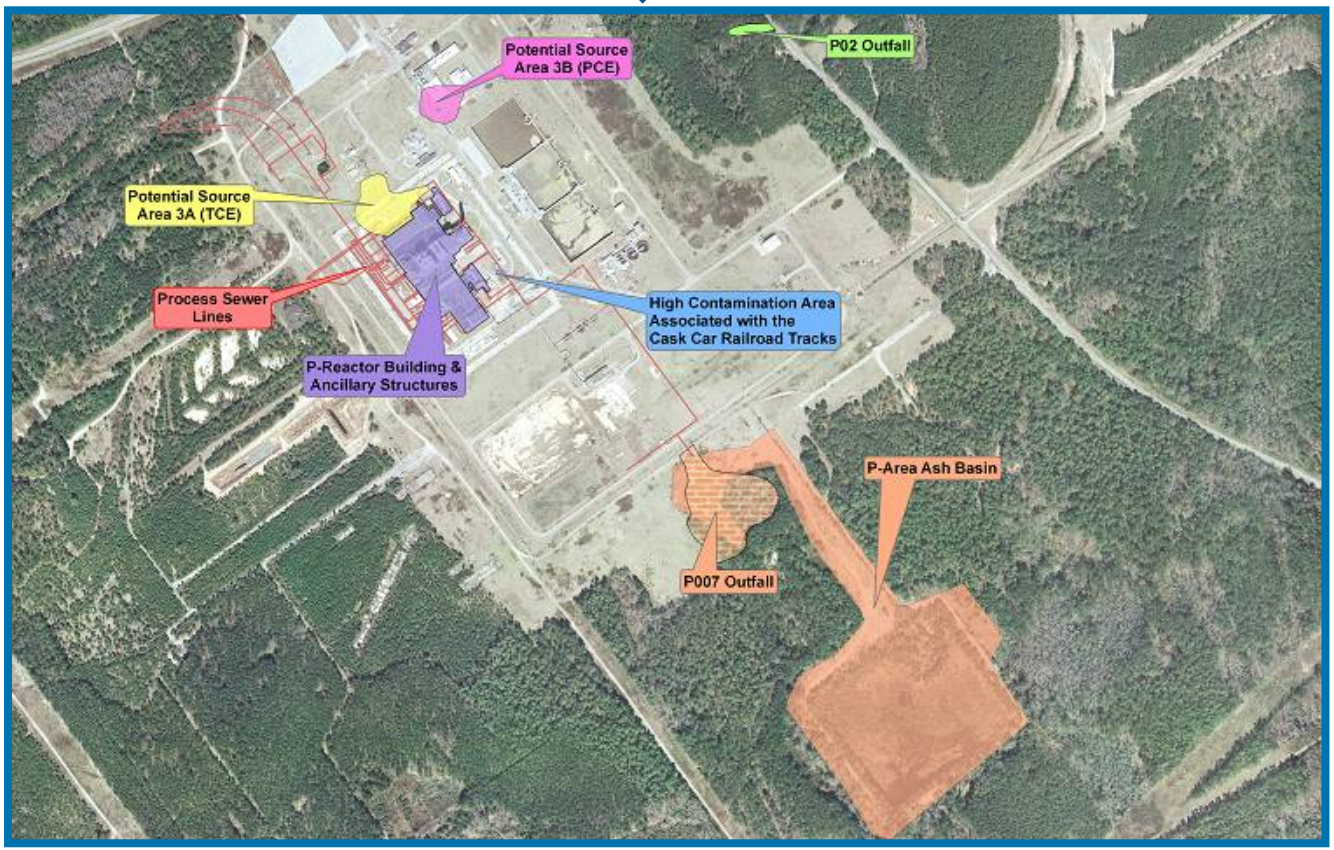
- P Area operated from 1954 and shutdown in 1991.
- Operable unit comprises approximately 100 acres, includes 17 waste units and, at one time, 42 buildings and ancillary structures.
- Facilities in the area included the reactor building, maintenance buildings, administrative building, cooling water basin, pump house, and a coal fired power house.
- Reactor was the operational centerpiece of the area and its purpose was to produce special nuclear materials for national defense.
- The PAOU is the first reactor area to be addressed under the area completion process.

PAOU Area Completion Objectives

- **Remediate waste units.**
- **In-Situ Decommission Reactor Building.**
- **At completion, the P-Area Operable Unit will be safe for industrial reuse.**

P-Area Operable Unit





P-Area Operable Unit Scope

- **This project is being safely performed as part of the Recovery Act funding at a TPC of $270M. Scope includes:**
  - **D&D of P-Reactor Building**
    - **Evaporation of four million gallons of water from the Disassembly Basin**
    - **The placement of approximately 130,000 cubic yards including:**
      - **Below grade spaces**
      - **Reactor Vessel**
      - **Disassembly Basin**
    - **The removal and disposal of above-grade Disassembly Basin structure and concrete cap installation**
    - **Ventilation Stack and Gantry Crane removal**
    - **Roof modifications and sealing of building**
    - **Batch Plant operations and maintenance**
    - **Upgrades to railroads and roads used for transporting grout materials**

P-Area Operable Unit Scope
(continued)

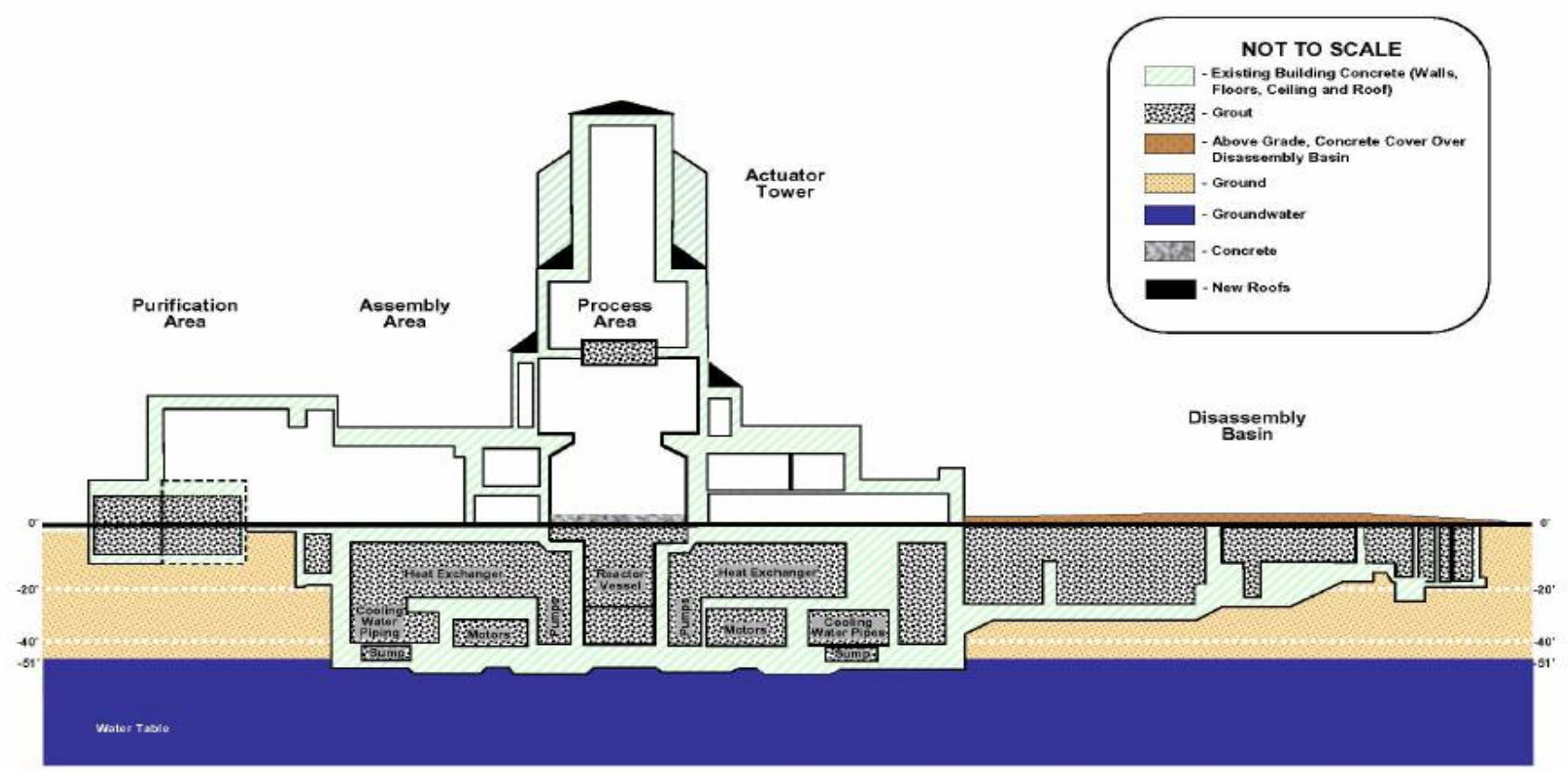
- **Remediate waste units:**
  - **P-Area Cask Car Railroad Tracks**
  - **PSA-3A and 3B waste units**
  - **P007 Outfall**
  - **P-Process Sewer Lines**
  - **P-Ash Basin**

P-Reactor Facility – Remediation Strategy

P-Reactor Facility Overview

- **Approach is to deactivate and in-situ decommission facility to include: evaporate disassembly basin water; grout basin; remove above grade portion of disassembly basin wing and cap basin; grout the below-ground portions of the reactor buildings; remove ventilation stack and gantry crane; modify roofs and seal building.**

Reactor In-Situ End-State Cross Section



P-Area Operable Unit Accomplishments

- **P-Reactor Facility:**
  - **Safely performing work**
  - **Completed deactivation**
  - **Removed exterior metal and piping from reactor building**
  - **Installed temporary power and lighting**
  - **Prepared facility for decommissioning**
  - **Installed and operating 6 Disassembly Basin Water evaporators with 4 additional undergoing testing**
  - **Completed Gantry Crane removal**
  - **Awarded contracts for stack removal/below-grade grouting and modify roofs / seal building**

P-Area Gantry Crane Mobilization / Removal Crane Assembly

Gantry Crane: Before and After

P-Area Operable Unit Accomplishments
(continued)

- **Achieved mechanical completion of the P-Cask Car Railroad Tracks Soil Contamination Removal.**
  - **Excavated and disposed on site 70 cubic yards of radiologically contaminated soil and debris**
- **Began remediation well installation at PSA 3A and 3B.**
- **Completed vegetation removal for Ash Basin remediation and soil stockpiling.**
- **Installing Batch Plant to provide grout to both P and R Reactor decommissioning.**

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P-Area Cask Car RR Tracks Remedial Action


P-Area Cask Car Railroad Tracks Waste Unit Completion


P-Area Cask Car Railroad Tracks Pre-Remediation

P-Area Cask Car Railroad Tracks Remediation


P-Area Cask Car Railroad Tracks Waste Unit Completion

P Area Batch Plant Mobilization

P-Ash Basin

- Installed 1500 linear feet of erosion control fencing
- Completed removal of 35-acres of vegetation to prepare site for clean soil cover
- Completed sampling around the P Area Ash Basin to determine ash thickness

Conclusion

- **Work is performed safely.**
- **Significant field activities underway leading to decommissioning first SRS Weapons Production Reactor.**
- **Stakeholder involvement contributing to cost effective cleanup.**